THE PRESENT AND FUTURE PROSPECTS OF JAPANESE FDI IN HUNGARY

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https://doi.org/10.47706/KKIFPR.2021.1.13-29

Abstract: Traditionally, the cornerstones of Hungary's competitiveness in FDI attraction have been the favourable geographic location and the availability of a qualified and cost-effective labour pool. Western countries are still far the most important sources of the FDI stock in Hungary, however Japan is the second largest investor among Asian nations. Most of the Japanese FDI has been concentrated in the automotive sector and has targeted Western, Central and Northeast Hungary. Some Japanese investors have already started to locate high-end manufacturing technologies to Hungary which was in line with the country's goal to be at the forefront of Industry 4.0. The main challenge on the Hungarian side is whether the country can ensure the necessary pool of talents and skilled labour to maintain its attractiveness and to move up in the value chain.

Keywords: foreign direct investment, FDI, Hungary, Japan, Industry 4.0

Introduction

From 2011, it has been a frequently cited strategic goal in the Hungarian Government's communication that the country should develop itself to be the manufacturing centre of Central and Eastern Europe. One of the goals of the 'Made in Hungary' concept was the reduction of unemployment which required the attraction of job-creating investment

projects. Accordingly, investment promotion has been considered as a top priority in governmental external economic activities. Decision-makers have made efforts on improving the investment environment in order to attract foreign companies' manufacturing activities. Potential Asian investors received intensified attention in line with the 'Opening to the East' policy declared by the Hungarian Government in the first half of the 2010s. Partly due to governmental efforts and partly due to favourable external conditions, the country managed to secure a number of manufacturing investment projects in the past couple of years.

As of early 2017, a shift could be noticed in the focus of the strategic goals communicated by the Ministry of Foreign Affairs and Trade. The 'Invented in Hungary' vison emerged, and it was articulated that the country had to attract research, development and activities of high value through foreign direct investment projects. This shift in goals and focus of communication indicates that further development of the Hungarian economy requires moving up in the global value chain and becoming – at least partly – an innovation centre.

This policy brief aims to analyse the role of major Japanese investor companies in the Hungarian FDI inflow over recent decades and also to evaluate how Japanese FDI can contribute to the above-mentioned goal of moving up in the global value chain and of creating a high-tech manufacturing sector in Hungary.

Hungary as an investment location

Located in the heart of the continent, a favourable geographic location is one of Hungary's main attractions concerning foreign direct investments. Being a major transport junction in Central and Eastern Europe, the country is an ideal location for regional distribution centres. In the last couple of years, the country has made efforts to position itself as a gateway to the European Union for companies from Eastern countries. Hungary has one of the highest road densities in Europe which also makes the country attractive for foreign companies. Its extensive railway network is also a strong

argument for potential investors in logistics with scheduled block trains running to Europe's main seaports. Záhony, a Hungarian border city, plays a significant role in East-West rail transportnthis is where the European standard gauge railway network meets the eastern broadgauge system. Additionally, Hungary offers the political and economic stability of being an EU member state.

When it comes to location selection for FDI, the availability of a qualified and cost-effective labour pool is always high on the agenda. This factor has been the cornerstone of Hungary's competitiveness in FDI attraction since the early 1990s. A new labour code was introduced in 2012 in order to create legislation that reflects the latest trends on the labour market. Today, wage differences are still remarkable when compared to Western European countries, however, Hungary and other countries in the region were reporting historic low unemployment rates before the outbreak of the COVID-19 pandemic in 2020 (according to the Hungarian Central Statistical Office (HCSO) in December, 2019-February, 2020, an unemployment rate of 3.5% was recorded in Hungary). Nevertheless, the crisis generated by the pandemic has not resulted in a significant increase of unemployment so far_{II}HCSO reported a rate of 4.3% in December, 2020. Naturally, substantial disparities can still be observed when comparing the more developed Western regions and the Budapest metropolitan area to the north-eastern and southern parts of the country. Nevertheless, it is anticipated that the availability of a skilled labour force in general remains an issue and is going to be the key challenge for any foreign investor, including Japanese companies.

The basics of the Hungarian taxation system are in line with Western European standards. A single-rate personal income tax was introduced in 2013_{Π} currently at a rate of 15%. Boosting the competitiveness of the Hungarian corporate taxation system, the Government reduced the tax rate to 9%, which is the lowest in the European Union. Based on EU legislation, Hungary offers a wide range of tax allowances and cash incentives for companies locating FDI projects to the country. During the period of 2017-2018, the social contribution tax rate of 27% payable by employers was reduced to 19.5% in two steps.

Figure 1
The most important Western and Asian origin countries of FDI in Hungary (2018)

| Origin country | FDI stock in 2018 (in EUR million) | Share in total FDI stock (in %) |
|-------------------|---------------------------------------|------------------------------------|
| Western countries | | |
| Germany | 17 593 | 21.0 |
| USA | 11 613 | 13.9 |
| Austria | 7 027 | 8.4 |
| France | 4 997 | 6.0 |
| Asia | | |
| Republic of Korea | 3 561 | 4.3 |
| Japan | 2 839 | 3.4 |
| India | 2 781 | 3.3 |
| China | 2 188 | 2.6 |

Source $_{\Pi}$ MNB (central bank of Hungary)

In line with the EU legislation, Hungary offers a wide range of tax allowances and cash incentives for companies implementing FDI projects in the country.

Protections for property and investment is distinctly developed in Hungary. The Foreign Investment Act of 1988 grants full protection to the investments and businesses of non-Hungarian resident investors and guarantees that non-Hungarian investors will be treated in the same manner as Hungarians.

As Figure 1 highlights, Western countries – especially Germany and the USA – are still by far the most important sources of FDI stock in Hungary. Japan is the second among Asian nations, and when it comes to greenfield investments, as of 2019, the country was considered to be the number one Asian investor in Hungary. However, this position may change soon as Korean battery manufacturer SK Innovation recently announced¹ the largest greenfield investment project of all time in Hungary.

Major Japanese investors in Hungary

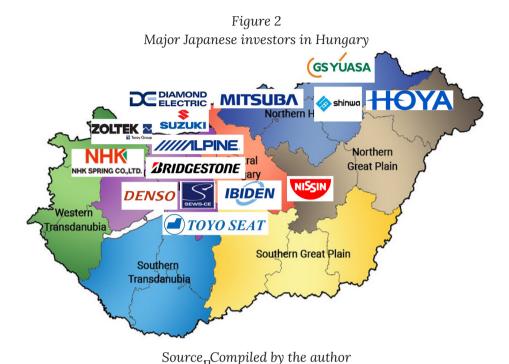
As of January 2021, 180 Japanese companies were operating in Hungary² with an aggregated employment of more than 33,000 people. The Hungarian Government entered into strategic cooperation agreements with seven of them so far. This chapter highlights the main features of the investments made by these seven Japanese companies and some further examples that prove the diversity of Japanese FDI in Hungary.

In the wake of political changes, Suzuki was one of the first global companies to choose Hungary as a manufacturing location. The agreement on the foundation of the joint venture³ was signed in April, 1991 and the inauguration ceremony of a new manufacturing plant in Esztergom was held on 7 May, 1993. Production for export commenced in 1994 the first markets were China, Italy and the Netherlands. Originally, the facility had been designed for an annual production capacity of 50,000 cars, however, as a result of several expansion projects and technology upgrading, the capacity of the plant increased to ca. 180,000 cars per year⁴ and shipments were launched to 128 countries around the world. The latest technology upgrading project targets the introduction of smart manufacturing processes in the facility and a related logistics network. As of January, 2021, the Hungarian affiliate was employing a stuff of almost 3,000. The Tokyo-based Bridgestone is primarily engaged in the manufacture and development of tyres which accounts for 84% of its product mix. The Hungarian subsidiary of Bridgestone began operations in 2006 and, since then, has evolved to become one of Hungary's largest tyre manufacturing facilities. Since its establishment, the number of employees has increased from ca. 360 to roughly 1,100 in January, 2021⁵.

Bridgestone's main activity in Hungary is the manufacture of tyres and tubes, including the production of passenger car and off-road tyres primarily for premium category motor vehicles and tyres with a high-speed index, in more than 230 sizes. The Japanese company's plant in Tatabánya was established in 2005 with its floor area tripling over time and its capacity expanded fourfold of the original by 2020⁶. In the past decade, the Japanese company invested about EUR 430 million in the construction and technological development of the second plant of the factory in Tatabánya, thus being one of the most modern plants internationally. As a result of an investment project worth HUF 9.2 billion⁷ completed in 2019, the Tatabánya facility has become the first factory in Europe – after Japan – to use artificial intelligence technology, 60% of the products are manufactured in this way.

Japanese company Denso is one of the world's top automotive suppliers, being specialised among others, in power transmission, electronics and safety systems. Denso has been present in Székesfehérvár, Hungary, since 1997. Its Hungarian plant manufactures⁸ fuel supply system components for the automotive industry, and produces system control units for camshafts and exhaust systems, relying on the expertise of almost 3,900 employees⁹. The Hungarian subsidiary considers Audi, Opel and Suzuki as its most important customers among domestic OEMs.

In 2013, Takata Corporation, a leading global supplier of automotive safety systems, announced the establishment of its plant near Miskolc, Northeast Hungary. Takata's HUF 20 billion investment was considered to be the largest FDI project announced in Hungary since the completion of a vehicle plant by Germany's Daimler¹⁰ concluded in 2012. The establishment of the Hungarian facility was the largest ever FDI project of Takata¹¹. However, faulty Takata air bag inflators¹² triggered the auto industry's biggest recall, while lawsuits and a criminal investigation drove the Japanese company to bankruptcy. As a consequence, auto components maker Key Safety Systems acquired Takata¹³ and the Hungarian facility could maintain its operations.



Ibiden Hungary Ltd.¹⁴ was established in 2004 in the industrial park of Dunavarsány, 25 kilometres south of Budapest, as the second European diesel particulate filter producing centre of the Japanese Ibiden Group. The manufacturing site was established as a result of a HUF 25 billion investment. Currently, the company employs a staff of ca. 1,800¹⁵ at the Hungarian site.

Tokyo-based Toray Industries is an integrated chemical group. Their products are mainly used in the aviation industry, aerospace sector and in the manufacturing of sports goods. Toray Industries Inc. concluded a merger agreement with the US-based Zoltek Companies Inc. in 2013. Zoltek has been present in Nyergesújfalu since 1995, where the only European plant of the company is located. In April 2018, Toray announced¹6 an important development in its Hungarian plant. The facility was to be expanded by an EUR 106 million investment that resulted in a 50% capacity

expansion_{II}making this unit the biggest carbon fiber producer in Europe. In 2019, the company announced another expansion¹⁷ of the Hungarian site. As a result of the EUR 408 million investment, the company will manufacture separator films required for lithium-ion batteries from the second half of 2021 in Nyergesújfalu. The project received the 'Largest Greenfield Investment of the Year' award¹⁸ in Hungary in 2019.

Alpine Electronics, Inc. is a Japanese consumer electronics subsidiary of the Japanese electronics component manufacturer Alps Electric, specializing in car audio and navigation systems. Established in 1998, Alpine's Hungarian subsidiary in Biatorbágy manufactures electronic entertainment equipment for the automotive industry. In 2015, the company announced an investment project¹⁹ that doubled the production capacity of the Hungarian unit. Based on the latest data²⁰, the company employs ca. 1,000 people in Hungary.

In Hungary, Japanese FDI is not limited to the automotive and chemical industries. The production of optical lenses in Hungary is an activity with a long history and rich in traditions. World-renowned optical manufacturer Magyar Optikai Művek (Hungarian Optical Works) was established in 1876. In the golden age of the company, some 8,000 people were employed throughout its premises, including six sites in the countryside. In the 1990's, the company became a member of Buchmann Group. Optical lens manufacturer Hoya acquired the German company in 1999 $_{\rm II}$ thus the Japan-based global enterprise became a major player in the Hungarian optical industry. Hoya's plant in Mátészalka (Eastern Hungary) is specialised in glass lenses, and the company employs a staff of more than 1,100²1.

Nissan operates its first and only financial shared service centre in Europe. Established in 2017, the Budapest centre²² supervises another service centre of the company in India and provides full accounting services for the subsidiaries of Nissan Europe in close cooperation with that centre in all major European languages. Centre activity was expanded in 2019 by means of the full financial support of the Sunderland and Barcelona manufacturing units as a result of which the staff numbers in the Budapest office were almost doubled.

It is worth analysing what the major arguments were for Japanese companies when choosing Hungary as an FDI location. According to the president and COO of Takata²³, the company chose Hungary for the project because of its highly skilled labour force and Miskolc in particular as the company wanted to establish a long-term cooperation with the town's university. In a testimonial, Alpine's managing director explained²⁴ that Hungary had created a business environment that supported growth in the automotive sector. He highlighted the knowledge and experience of the workforce in electronics manufacturing and the infrastructure and developed logistics routes that provide quick access and ensure smooth communications with customers in Western Europe. Toray and Hoya gained possession over their Hungarian manufacturing units via acquiring other corporations. However, expansion projects implemented ever since prove that both companies are satisfied with the operating conditions in Hungary. The Deputy CEO of Magyar Suzuki Corporation declared in a testimonial ²⁵ that the main benefits of the Hungarian manufacturing location are the proximity to Budapest, the capital with a large pool of professional talent and the constantly developing infrastructure that, for Suzuki, enables easy access to the European and global markets. In the case of Denso and Ibiden, most probably the golden combination of the geographic proximity of the German car industry and lower labour and operational costs were the main arguments in favour of Hungary. The Managing Director of Nissan Sales CEE explained²⁶ that an important aspect in their investment decision was the immediate availability of skilled labour as Budapest has become a major power regarding service centres.

Hungary' future economic development and the role of Japanese FDI

In general, it is a key target declared by governing politicians that Hungary should develop itself to be an ideal location for research and development activities and to be able to offer the most attractive and favourable investment environment in Europe. This assumes that companies should consider Hungary not exclusively as a location for manufacturing but also as a place for innovation. That means a transition from 'Made in Hungary' to 'Invented in Hungary'. In order to achieve these goals, the country should capture investment projects of higher added value. More specifically, this means knowledge-intensive industries, advanced technology manufacturing, shared service centres of complex activities, and research and development centres. The attraction of such projects could boost Hungary's catching up to countries of high income. The main question is whether future FDI projects of Japanese companies could fit into this vision.

Besides the strategic goal of moving up in the value chain, it is also worth highlighting some industry-specific aspects of Hungarian FDI attraction. It is widely acknowledged that the Hungarian economy's performance relies heavily on the automotive industry. According to data provided by HCSO²⁷, in November, 2020 production of vehicles accounted for 30% of total manufacturing output in Hungary and employed 176,100 people²⁸. This fact has two main consequences on Hungarian investment promotion strategies. Firstly, Hungary has to create an investment environment that assists automotive manufacturers in preparing for the era of electric, automated and connected vehicles. From the perspective of automotive manufacturers, entering the new era of mobility coincides with a revolution in production technology, commonly referred to as Industry 4.0. Therefore, in terms of vehicle manufacturing, Hungary has a dual target of maintaining its position in the automotive supply chain in the era of electromobility and also enhancing smart manufacturing and Industry 4.0-related technologies.

The second consequence of the economic predominance of the automotive industry is that Hungary has to seek opportunities to diversify its FDI mix in order to decrease exposure. The lessons learnt from the first year of the COVID-19 pandemic also underline the need for more FDI in those industries that proved to be crisis resistant.

Taking a look at the activity of the above listed Japanese companies in Hungary, it is apparent that some of these investors have already started to locate high-end manufacturing technologies to Hungary in the framework of their global strategy to prepare for the era of Industry

4.0. As result of its investment project completed in 2019, Bridgestone already applies artificial intelligence-based technology in its Hungarian facility. Suzuki has also introduced smart manufacturing in its plant in Esztergom. If we consider e-mobility, Toray Industries has chosen Hungary as the location for its battery separator film manufacturing plant for lithium-ion batteries. With that investment, the Japanese company is becoming a key player in the domestic e-mobility sector. These examples show that Japanese FDI projects can fit into the framework provided and nurtured by the Hungarian state. Hungarian Government's vision on future economic development and FDI attraction. Many years of positive experiences regarding the operation in Hungary creates a solid base for Japanese companies to move on this path and locate high-end activities or R&D to their Hungarian sites. The main challenge on the Hungarian side is whether the country can ensure the necessary pool of talents and skilled labour being capable of handling the most up-to-date technologies. Before the outbreak of the COVID-crisis this aspect seemed to be the number one barrier to the inflow of more high-end manufacturing FDI. As for now it seems that the pandemic has not changed labour market trends in Hungary drastically. The enhanced cooperation between Japanese companies and Hungarian educational institutes could be a forwardlooking approach to prevent future shortages of skilled labour. A good example for that was the cooperation agreement signed between the Miskolc University and Takata²⁹ that initiated collaboration both on training material and the university's R&D activity.

As for a shift in FDI mix towards more crisis-proof industries, pharmaceuticals could be a promising option. Hungary's modern pharmaceutical industry has strong roots and looks back at a history 120 years. Ever since, ground-breaking contributions to life sciences were made by Hungarian scientists. Throughout the 20th century, Hungary was the most important supplier of medicine for Eastern Europe and remained at the forefront of the region's pharmaceutical industry. Among the major manufacturers in the Hungarian pharma industry there are British, French and Israeli companies, but no Japanese corporations yet. Japan has a number of global pharma companies

like Takeda, Daiichi Sankyo or Astellas that could be interested by the opportunities Hungary as an investment location can offer. The medical device industry may also provide ground for extended investment promotion activity towards Japanese companies.

The race for capturing FDI projects in the post-COVID world may also pose a threat to the future inflow of Japanese FDI into Hungary. As the crisis bites, the competition for foreign direct investments in Central and Eastern Europe will be stronger than ever. Playing in the same league, countries like Serbia, Romania or Bulgaria are characterised by lower average wage levels compared to Hungary, making these countries more attractive for manufacturing projects. When it comes to making a decision on an investment location, the availability of incentives is always a crucial issue. Being a member state of the European Union, Hungary can offer cash subsidies and tax allowances for FDI projects in line with EU legislation. In certain cases, this results in a lack of flexibility regarding the incentive package that can be offered by the Government. Non-EU countries evidently have a comparative advantage in that respect.

As for now, it appears that the COVID-19 crisis has not decreased Hungary's attractiveness for Japanese investors. On 12 January, 2021, the Hungarian Minister of Foreign Affairs and Trade announced that three Japanese companies (Denso, Alpine and Diamond Electric) would invest a total of HUF 65 billion³⁰ in order to develop their manufacturing sites in Hungary.

Conclusions

In order to assist the economic recovery following the COVID-19 pandemic, competition for the FDI projects of Japanese companies will be fierce in the region therefore, continuous improvement of the business climate is required to maintain Hungary's attractiveness as an investment location. The number one challenge for Japanese investors in Hungary is undoubtedly the availability of the labour force. To manage this risk, Japanese investor companies, corporations with a well-established

presence in Hungary and newcomers to the market, should cooperate closely with local vocational training schools, universities, and the government itself.

Despite the gravitational shift in the global economy, Western European countries and the USA will remain the dominant sources of FDI for Hungary in the foreseeable future. Japan will certainly not replace them in the structure of investment relations. Nevertheless, Japan is one of the most important Eastern sources of FDI and this relationship makes Hungary's external economic relations more stable. Multiple Japanese investor success stories may encourage newcomer companies from the Asian country to choose Hungary as an investment location in the future.

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